## **IN THE CLAIMS**

1 (Previously Presented). An apparatus comprising:

a dielectric layer;

an adhesion layer comprising hemispheric grain polysilicon overlying the dielectric layer; and

a phase-change material overlying the adhesion layer.

2 (Previously Presented). The apparatus of claim 1, wherein the adhesion layer is on the dielectric layer.

3 (Original). The apparatus of claim 1, wherein the phase-change material is on the adhesion layer.

4 (Original). The apparatus of claim 1, wherein the adhesion layer consists essentially of silicon.

5 (Original). The apparatus of claim 1, wherein the adhesion layer comprises at least forty percent silicon atoms by weight.

Claim 6 (Canceled).

7 (Original). The apparatus of claim 1, wherein the adhesion layer comprises three dimensional grains.

Claims 8-10 (Canceled).

11 (Previously Presented). An apparatus comprising:

an adhesion layer comprising silicon having a rough surface; and
a phase-change material on the adhesion layer.

Claim 12 (Canceled).

- 13 (Previously Presented). The apparatus of claim 11, wherein the adhesion layer comprises hemispherical grain polysilicon.
- 14 (Original). The apparatus of claim 11, wherein the adhesion layer has a surface comprising bumps having an average height of at least 30 Angstroms.
- 15 (Original). The apparatus of claim 11, further comprising a dielectric layer, wherein the adhesion layer is on the dielectric layer.
- 16 (Original). The apparatus of claim 15, wherein the dielectric layer comprises silicon dioxide or silicon nitride.
- 17 (Original). The apparatus of claim 11, wherein the phase-change material comprises a chalcogenide alloys.
- 18 (Original). The apparatus of claim 17, wherein the phase-change material comprises GeSbTe alloys.
  - 19 (Original). A method comprising:

forming an interfacial layer having three dimensional grains; and forming a phase-change material over said interfacial layer.

- 20 (Original). The method of claim 19, wherein forming an interfacial layer includes forming an interfacial layer over an insulator.
- 21 (Original). The method of claim 19, wherein forming the interfacial layer includes forming a layer having hemispheric grains.

- 22 (Original). The method of claim 19 wherein forming an interfacial layer includes forming a layer comprising silicon.
- 23 (Original). The method of claim 19 further including forming the interfacial layer over a layer of dielectric material.
- 24 (Currently Amended). The method of claim 23 further including forming an opening through said interfacial layer and said <u>dielectric material insulator</u>.
- 25 (Original). The method of claim 24 further including forming the phase-change material over the interfacial layer and in the opening.
  - 26 (Currently Amended). An apparatus comprising:

    an adhesion layer having <u>bumps of at least 30 Angstroms-a rough surface</u>; and a chalcogenide phase-change material on <u>said</u> the adhesion layer.
- 27 (Previously Presented). The apparatus of claim 26 wherein said adhesion layer includes silicon.
- 28 (Previously Presented). The apparatus of claim 26 wherein said adhesion layer comprises hemispherical grain polysilicon.
  - 29 (Currently Amended). An apparatus comprising:

    an adhesion layer having <u>bumps of at least 30 Angstroms a rough surface</u>;
    a dielectric layer, said adhesion layer on the dielectric layer; and
    a phase-change material on the adhesion layer.
- 30 (Previously Presented). The apparatus of claim 29 wherein said adhesion layer includes silicon.

- 31 (Previously Presented). The apparatus of claim 29 wherein said adhesion layer comprises hemispherical grain polysilicon.
- 32 (New). The apparatus of claim 26 wherein said adhesion layer includes polysilicon.
- 33 (New). The apparatus of claim 29 wherein said adhesion layer includes polysilicon.